

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.5371
TO BE ANSWERED ON 25.07.2019**

ASSESSMENT OF SUPPLY AND DEMAND OF POWER

**†5371. SHRI R.K. SINGH PATEL:
DR. VIRENDRA KUMAR:
SHRI MANSUKHBHAI DHANJIBHAI VASAVA:**

**Will the Minister of POWER
be pleased to state:**

- (a) whether the Government has conducted any assessment of the supply and demand of electricity and if so, the details thereof, State/UT-wise;**
- (b) the estimated requirement of electricity in the country in the year 2020;**
- (c) the quantity of electricity likely to be available from the existing and ongoing projects in the country;**
- (d) whether the Government has decided to set up new power generation units to meet the shortage of electricity and if so, the details thereof, State/UT-wise; and**
- (e) the details of power projects to be set up by the Government for the next five years, project-wise and State/UT-wise?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : The 19th Electric Power Survey (EPS) report covers electricity demand projection for the year 2016-17 to 2026-27 as well as perspective electricity demand projection for the year 2031-32 and 2036-37 for each state/UTs. The estimated requirement of the country, state/UT-wise for the year 2020 is given at Annexure-I

(c) : As per National Electricity Plan notified in 2018, the projected All India Installed Capacity by the end of 2021-22 is likely to be 4,79,419 MW which includes 2,17,302 MW from Coal, 25,735 MW from Gas, 51,301 MW from Hydro, 10,080 MW from Nuclear and 1,75,000 MW from Renewable Energy Sources. With this generation-installed capacity, all India electricity demand of 1566 BU projected as per 19th Electric Power Survey (EPS) is likely to be fully met.

(d) & (e) : After enactment of the Electricity Act 2003, generation of electricity has been de-licensed. As per information available with the Central Electricity Authority (CEA), details of thermal power projects (units) under construction in the country is given at Annexure-II. The state-wise list of under construction hydro electric projects (above 25 MW) is given at Annexure-III. The details of under construction Nuclear Power Projects that are likely to yield benefit by the year 2021-22 is given at Annexure-IV.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 5371 TO BE ANSWERED IN THE LOK SABHA ON 25.07.2019.

Estimated requirement of electricity in for the year 2020

(in Million Unit)

State/UTs	2019-20
Delhi	35380
Haryana	57083
Himachal Pradesh	10949
Jammu & Kashmir	17109
Punjab	64730
Rajasthan	83168
Uttar Pradesh	132476
Uttarakhand	17007
Chandigarh	2145
Goa	5068
Gujarat	120693
Chhattisgarh	33463
Madhya Pradesh	88022
Maharashtra	171313
D. & N. Haveli	8210
Daman & Diu	2449
Andhra Pradesh	68034
Telangana	75164
Karnataka	77532
Kerala	28535
Tamil Nadu	123724
Puducherry	3387
Bihar	31017
Jharkhand	27488
Odisha	30302
West Bengal	63979
Sikkim	577
Assam	11894
Manipur	1769
Meghalaya	2378
Nagaland	992
Tripura	1456
Arunachal Pradesh	1210
Mizoram	737
Andaman & Nicobar	414
Lakshadweep	57
All India	1399913

ANNEXURE REFERRED TO IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 5371 TO BE ANSWERED IN THE LOK SABHA ON 25.07.2019.

Details of Under Construction Thermal Power Projects in the Country

Sl. No.	State	Project Name	Unit No	Cap. (MW)	Anticipated Commissioning Schedule
		CENTRAL SECTOR			
1	Bihar	Barh STPP-I	U-1	660	Apr-20
			U-2	660	Apr-21
			U-3	660	May-22
2	Bihar	Nabi Nagar TPP	U-4	250	Apr-20
3	Bihar	New Nabi Nagar TPP	U-1	660	Sep-19
			U-2	660	Apr-20
			U-3	660	Mar-22
4	Chhattisgarh	Lara STPP	U-2	800	Dec-19
5	Jharkhand	North Karanpura STPP	U-1	660	Oct-20
			U-2	660	Oct-21
			U-3	660	Mar-22
6	MP	Gadarwara STPP	U-2	800	Dec-19
7	MP	Khargone STPP	U-1	660	Jul-19
			U-2	660	Mar-20
8	Odisha	Darlipalli STPP	U-1	800	Sep-19
			U-2	800	Jun-20
9	Rajasthan	Barsingar TPP ext	U-1	250	On Hold
10	Rajasthan	Bithnok TPP	U-1	250	On Hold
11	Telangana	Telangana STPP St- I	U-1	800	Aug-20
			U-2	800	Jul-21
12	TN	Neyveli New TPP	U-1	500	Aug-19
			U-2	500	Mar-20
13	UP	Meja STPP	U-2	660	Jun-20
14	UP	Ghatampur TPP	U-1	660	Feb-22
			U-2	660	Aug-23
			U-3	660	Feb-23
15	UP	Tanda TPP St II	U-5	660	Sep-19
			U-6	660	Apr-20
16	Jharkhand	Patratu STPP	U-1	800	May-22
			U-2	800	Sep-22
			U-3	800	Dec-22
17	Odisha	Rourkela PP-II Expansion	U-1	250	Apr-22
		TOTAL CENTRAL SECTOR		20420	
		STATE SECTOR			
1	A.P	Dr.Narla Tata Rao TPS St-V	U-1	800	Feb-20
2	A.P	Sri Damodaran Sanjeevaiah TPP St- II	U-1	800	Sep-20
3	Assam	Namrup CCGT	ST	36.15	Dec-19
4	Gujarat	Wanakbori TPS Extn.	U-8	800	Oct-19
5	Karnataka	Yelahanka CCGT	GT+ST	370	Oct-19
6	Maharashtra	Bhusawal TPS	U-6	660	NA
7	Odisha	Ib valley TPP	U-4	660	Sep-19
8	Rajasthan	Suratgarh SCTPP	U-7	660	Sep-19
			U-8	660	Sep-20
9	Telangana	Bhadradi TPP / TSGENCO/ BHEL	U-1	270	Mar-20
			U-2	270	Sep-20
			U-3	270	Mar-21
			U-4	270	Sep-22
10	TN	Ennore exp. SCTPP	U-1	660	Jul-21
11	TN	Ennore SCTPP	U-1	660	Jul-21
			U-2	660	Feb-22
12	TN	North Chennai TPP St-III	U-1	800	Jul-20
13	TN	Udangudi STPP Stage I	U-1	660	Dec-21
			U-2	660	Jun-22
14	TN	Uppur Super Critical TPP	U-1	800	Mar-22
			U-2	800	Sep-22
15	UP	Harduaganj TPS Exp-II	U-1	660	Apr-20
16	Telangana	Yadadri TPS	U-1	800	Sep-20
			U-2	800	Sep-20
			U-3	800	Mar-21
			U-4	800	Mar-21
			U-5	800	Sep-21

17	UP	Jawaharpur STPP	U-1	660	Mar-21
			U-2	660	Jul-21
18	UP	Panki TPS Extn	U-1	660	
19	UP	Obra-C STPP	U-1	660	Apr-21
			U-2	660	Dec-20
	Total State Sector			20186.15	
		PRIVATE SECTOR			
1	AP	Bhavanapadu TPP Ph-	U-1	660	
			U-2	660	
2	AP	Thamminapatnam TPP stage -II / Meenakshi Energy Pvt. Ltd. SG-Cether vessels TG-Chinese	U-3	350	Dec-20
			U-4	350	Mar-21
3	Bihar	Siriya TPP (Jas Infra. TPP)	U-1	660	
			U-2	660	
			U-3	660	
			U-4	660	
4	Chhattisgarh	Akaltara TPP (Naiyara)	U-4	600	Apr-22
			U-5	600	
			U-6	600	
5	Chhattisgarh	Binjkote TPP/	U-3	300	
			U-4	300	
6	Chhattisgarh	Lanco Amarkantak TPP-II	U-3	660	
			U-4	660	
7	Chhattisgarh	Singhitarai TPP	U-1	600	
			U-2	600	
8	Chhattisgarh	Salora TPP	U-2	135	
9	Chhattisgarh	Deveri (Visa) TPP	U-1	600	
10	Jharkhand	Matrishri Usha TPP Ph-I / Corporate Power Ltd. EPC-BHEL	U-1	270	
			U-2	270	
11	Jharkhand	Matrishri Usha TPP Ph-II	U-3	270	
			U-4	270	
12	Jharkhand	Tori TPP Ph-I	U-1	600	
			U-2	600	
13	Jharkhand	Tori TPP Ph-II	U-3	600	
14	Maharashtra	Amravati TPP Ph-II	U-1	270	
			U-2	270	
			U-3	270	
			U-4	270	
			U-5	270	
15	Maharashtra	Lanco Vidarbha TPP	U-1	660	
			U-2	660	
16	Maharashtra	Nasik TPP Ph-II	U-1	270	
			U-2	270	
			U-3	270	
			U-4	270	
			U-5	270	
17	Maharashtra	Bijora Ghanmukh TPP	U-1	300	
			U-2	300	
18	Maharashtra	Shirpur TPP	U-2	150	
19	MP	Gorgi TPP	U-1	660	
21	Odisha	Ind Barath TPP (Odisha)	U-2	350	
22	Odisha	KVK Nilanchal TPP	U-1	350	
			U-2	350	
			U-3	350	
23	Odisha	Lanco Babandh TPP	U-1	660	
			U-2	660	
24	Odisha	Malibrahmani TPP	U-1	525	
			U-2	525	
25	TN	Tuticorin TPP (Ind- Barath)	U-1	660	
26	TN	Tuticorin TPP St-IV	U-1	525	Dec-20
27	WB	Hiranmaye Energy Ltd (India Power corporation (Haldia) TPP	U-3	150	
	Total Private Sector			23730	
	Grand Total			64336.15	

Note: Anticipated date of commissioning has not been communicated by Private developer to CEA.

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List of Under Construction Hydro Electric Projects in the Country (above 25 MW)

State wise

(As on 30.06.2019)

Sl. No.	Name of Scheme (Executing Agency)	Sector	I.C. (No. x MW)	Cap. Under Execution (MW)	Likely Commissioning Schedule
Andhra Pradesh					
1	Polavaram (APGENCO/ Irrigation Dept., A.P.)	State	12x80	960.00	2021-23 (Mar'23)
	Sub-total: Andhra Pradesh			960.00	
Arunachal Pradesh					
2	Kameng (NEEPCO)	Central	4x150	600.00	2019-20 (Dec,19)
3	Subansiri Lower (NHPC)	Central	8x250	2000.00	2023-24 *
	Sub-total: Arunachal Pradesh			2600.00	
Himachal Pradesh					
4	Parbati St. II (NHPC)	Central	4x200	800.00	2021-22 (Dec'21)
5	Uhi-III (BVPCL)	State	3x33.33	100.00	2019-20 (Jan'20)
6	Sawra Kuddu (HPPCL)	State	3x37	111.00	2019-20 (Mar'20)
7	Shongtong Karcham (HPPCL)	State	3x150	450.00	2023-25 (Apr'24)
8	Bajoli Holi (GMR)	Private	3x60	180.00	2019-20 (Mar'20)@
9	Sorang (HSPCL)	Private	2x50	100.00	2019-20 (Mar'20)@
10	Tangnu Romai (TRPG)	Private	2x22	44.00	2021-22 *
11	Tidong-I (Statkraft IPL)	Private	100.00	100.00	2021-22 (Oct'21)
	Sub-total: Himachal Pradesh			1885.00	
Jammu & Kashmir					
12	Pakal Dul (CVPPL)	Central	4x250	1000.00	2023-24 (Aug'23)
13	Parnai (JKSPDC)	State	3x12.5	37.50	2021-22 (Mar'22)
14	Lower Kalnai (JKSPDC)	State	2x24	48.00	2022-23 *
15	# Ratle (RHEPPL)	Private	4x205 + 1x30	850.00	2023-24 *
	Sub-total: Jammu & Kashmir			1935.50	
Kerala					
16	Pallivasal (KSEB)	State	2x30	60.00	2021-22 (Dec'21)
17	Thottiyar (KSEB)	State	1x30+1x10	40.00	2020-21 (Dec'20)
	Sub-total: Kerala			100.00	
Madhya Pradesh					
18	## Maheshwar (SMHPCL)	Private	10x40	400.00	2021-22 *
	Sub-total: Madhya Pradesh			400.00	
Maharashtra					
19	Koyna Left Bank (WRD,MAH)	State	2x40	80.00	2022-23 *
	Sub-total: Maharashtra			80.00	
Punjab					
20	Shahpurkandi (PSPCL/ Irrigation Deptt., Pb.)	State	3x33+3x33+1 x8	206.00	2021-22 (Nov'21)
	Sub-total: Punjab			206.00	
Sikkim					
21	Teesta St. VI NHPC	Central	4x125	500.00	2023-24 *
22	Bhasmey (Gati Infrastructure)	Private	3x17	51.00	2022-23 *
23	Rangit-IV (JAL Power)	Private	3x40	120.00	2022-23 *
24	Rangit-II (Sikkim Hydro)	Private	2x33	66.00	2021-22 *
25	Rongnichu (Madhya Bharat)	Private	2x48	96.00	2020-21 (Sept'20)
26	Panan (Himagiri)	Private	4x75	300.00	2023-24 *
	Sub-total: Sikkim			1133.00	
Tamil Nadu					
27	Kundah Pumped Storage	State	1x125	125.00	2022-23
	Sub-total: Tamil Nadu			125.00	

	Uttarakhand				
28	Lata Tapovan (NTPC)	Central	3x57	171.00	2023-24 *
29	Tapovan Vishnugad (NTPC)	Central	4x130	520.00	2020-21 (Dec'20)
30	Tehri PSS (THDC)	Central	4x250	1000.00	2021-23 (Jun'22)
31	Vishnugad Pipalkoti (THDC)	Central	4x111	444.00	2022-23 (Dec'22)
32	Naitwar Mori (SJVNL)	Central	2x30	60.00	2021-22 (Dec-21)
33	Vyasi (UJVNL)	State	2x60	120.00	2020-21 (Jun'20)
34	Phata Byung (LANCO)	Private	2x38	76.00	2021-22 *
35	Singoli Bhatwari (L&T)	Private	3x33	99.00	2019-20 (Mar'20)@
	Sub-total: Uttarakhand			2490.00	
	West Bengal				
36	Rammam-III (NTPC)	Central	3x40	120.00	2021-22 (Feb'22)
	Sub-total: West Bengal			120.00	
	Total:			12034.50	
*	Subject to restart of works				

Govt. of J&K, PDD have terminated PPA on 09.02.2017 and directed JKSPDC to take over the project. MoU between NHPC (51% share) & JKSPDC (49% share) signed on 03.02.2019 for implementation of project in JV mode.

PFC as lead lender have acquired majority equity i.e. 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice.

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ANNEXURE-IV

ANNEXURE REFERRED TO IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 5371 TO BE ANSWERED IN THE LOK SABHA ON 25.07.2019.

Nuclear Power Projects likely to yield benefit by the year 2021-22

Sl.	Project Name	Sector	State	Capacity (in MW)
1	Kakrapar Atomic Power Plant	Central	Gujarat	1400
2	Rajasthan Atomic Power Station	Central	Rajasthan	1400
3	BHAVINI (PFBR)	Central	Tamil Nadu	500
	Total (Nuclear)			3300
